 Latest release

Average Weekly Earnings, Australia methodology

Reference period November 2023

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Introduction

The Survey of Average Weekly Earnings (AWE) is a survey of business units which has been conducted since 1981. Prior to August 1981, the AWE series was based principally on information from payroll tax returns. The survey is currently conducted biannually, in May and November, and was conducted on a quarterly basis until May 2012.

The purpose of the survey is to measure the level of average gross weekly earnings associated with employees. While AWE is not designed to produce movement in earnings data, the frequency of collection supports a time series of these level estimates.

In practice, AWE estimates are used in commercial contracts, more broadly by the private sector for economic and labour market analysis, and in Commonwealth, state and territory legislation for adjusting a variety of government payments, supporting minimum wage claims and monitoring wage equity, and as an indicator of change in underlying wage rates for economic or taxation policy analysis.

Earnings in AWE are broadly defined as current and regular payments in cash to employees for work done, excluding amounts salary sacrificed (except for the Average Weekly Cash Earnings series which are inclusive of salary sacrificed). Descriptions of the underlying concepts of Australia's AWE statistics (including the concept of earnings used in AWE), and the sources and methods used in compiling these estimates, are presented in [Labour Statistics: Concepts, Sources and Methods (/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/latest-release)](#) .

Reference period

The reference period for the survey is the last pay period ending on or before the third Friday of the middle month of the reference quarter (i.e. May and November). Where a pay period is fortnightly or monthly, etc., the employer is requested to report only one week's proportion.

The data is collected in respect of a typical week and, therefore, may not reflect events such as Christmas trading. The data excludes irregular and infrequent payments, such as annual bonuses. For these reasons, caution is advised if using AWE to derive annualised average earnings.

Scope and coverage

The AWE survey includes all wage and salary earners who received pay for the reference period, except:

- members of the Australian permanent defence forces;

- employees of enterprises primarily engaged in agriculture, forestry and fishing;
- employees of private households;
- employees of overseas embassies, consulates, etc.;
- employees based outside Australia; and
- employees on workers' compensation who are not paid through the payroll.

Also excluded are:

- casual employees who did not receive pay during the reference period;
- employees on leave without pay who did not receive pay during the reference period;
- employees on strike, or stood down, who did not receive pay during the reference period;
- directors who are not paid a salary;
- proprietors/partners of unincorporated businesses;
- self-employed persons such as subcontractors, owner/drivers, consultants;
- persons paid solely by commission without a retainer; and
- employees paid under the Australian Government's Paid Parental Leave Scheme.

Collection method

Details of the total number of employees and earnings paid for the survey reference week are obtained on a biannual basis (in May and November) from selected businesses. Data are collected via online electronic collection.

Follow-up procedures are in place to obtain information from respondents who do not lodge a completed form by the due date. The target minimum response is 90% for the survey as a whole, and approximately 85% for each state and/or industry.

Sample design

The sample is selected from the ABS Business Register (ABSBR) which is a list of businesses and organisations operating in Australia primarily based on registrations to the Australian Taxation Office's (ATO) Pay-As-You-Go Withholding (PAYGW) scheme. The population is updated quarterly to take account of new businesses, businesses that have ceased employing, changes in industry and employment levels and other general business changes.

Sample redesigns are undertaken periodically to ensure the survey design continues to be optimal. The most recent sample redesign for the Survey of Average Weekly Earnings was

implemented for May 2023.

A probability sample of statistical units (employing businesses) is drawn from the ABSBR. The statistical unit for the survey comprises all the activities of an employer in a particular state or territory based on the Australian Business Number (ABN) unit or Type of Activity Unit (TAU). Each statistical unit is classified to an industry which reflects the predominant activity of the business. Variables used to stratify the survey frame are:

- public/private sector;
- industry;
- state/territory; and
- employment size – the ranges used vary between states/territories and industries.

Statistical units with benchmark employment greater than a set cut off (this cut off will vary for different states/territories) are completely enumerated. Strata with a very small number of statistical units may also be completely enumerated, but such strata may become sampled strata if the number of units increases sufficiently. Within each stratum, statistical units are selected with equal probability.

Sample selection is constrained by ensuring that there is minimum overlap with other labour-related business surveys.

For details on the ABS Business Register and ABS economic units model, see the [Business surveys (/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/2023/methods-four-pillars-labour-statistics/business-surveys)](/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/2023/methods-four-pillars-labour-statistics/business-surveys) section in Labour Statistics: Concepts, Sources and Methods.

Sample size

A sample of approximately 6,000 employer units is selected from the ABS Business Register to ensure adequate state, industry and sector representation. This yields a live sample of approximately 5,600 units. The responding employers in the sample account for around four million of the almost 12 million employees in Australia.

The sample is allocated optimally across sampled strata using a technique designed to minimise the variance of AWE estimates at both the national and state/territory level.

Sample rotation

The sample is updated each period to reflect changes in the ABS Business Register. Approximately 16% of the sample selected from the non-completely enumerated strata is

replaced each period. Refer to the [Business surveys (/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/2023/methods-four-pillars-labour-statistics/business-surveys)](/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/2023/methods-four-pillars-labour-statistics/business-surveys) section in Labour Statistics: Concepts, Sources and Methods for further information.

Sample rotation is implemented for the majority of sampled strata, but is not implemented where the population of a stratum is so small that units rotating out of the sample would be rotated back in after only a short interval.

Use of Australian Business Register (ABR) data

The results of these studies are based, in part, on ABR data supplied by the Registrar to the ABS under [A New Tax System (Australian Business Number) Act 1999 (https://www.legislation.gov.au/C2004A00467/latest/text)](https://www.legislation.gov.au/C2004A00467/latest/text) which requires that such data is only used for the purpose of carrying out functions of the ABS. Any discussion of data limitations or weaknesses is in the context of using the data for statistical purposes and is not related to the ability of the data to support the ABR's core operational requirements.

Legislative requirements to ensure privacy and secrecy of this data have been followed. In accordance with the [Census and Statistics Act 1905 (https://www.legislation.gov.au/Details/C2020C00296)](https://www.legislation.gov.au/Details/C2020C00296), results have been confidentialised to ensure that they are not likely to enable identification of a particular person or organisation.

Estimation

Ratio estimation is used in all sampled strata, except in small sized strata where number raised estimation is used.

In both completely enumerated and sampled strata, an automatic imputation procedure is used for units not responding, by applying imputed growth rates to the most recently reported employment and earnings data for these units, provided that data have been reported in a previous period. This is referred to as Beta imputation. Otherwise, the Live Respondent Mean method is used to impute for missing data items.

The winsorisation methodology is used as the primary method to treat outliers in AWE. Winsorisation moderates the impact of an outlier business without the harsh impact of the surprise outliering approach. For more information, refer to the [Methods: Four pillars of labour statistics (/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/2023/methods-four-pillars-labour-statistics)](/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/2023/methods-four-pillars-labour-statistics) section in Labour Statistics: Concepts, Sources and Methods.

Survey estimates include an adjustment called Business Provisions to allow for births and resurrections of businesses that have occurred up to the end of the survey reference period but which are not reflected on the survey frame.

For further information on estimation methods used in ABS business surveys, refer to the [Business surveys (/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/2023/methods-four-pillars-labour-statistics/business-surveys)](/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/2023/methods-four-pillars-labour-statistics/business-surveys) section in Labour Statistics: Concepts, Sources and Methods.

Seasonal adjustment and trend estimation

Both seasonally adjusted and trend estimates are usually produced for key series from this survey.

Due to the disruption to earnings data, trend estimates were suspended during the COVID-19 period. During this period, the ABS also used forward seasonal factors to produce seasonally adjusted estimates for some AWE series. Forward factor adjustments are generally better suited to managing large movements at the end point of a series and ensure that large movements do not have a disproportionate influence on the seasonal factors.

From November 2022, the ABS reinstated the trend estimates and reverted to using the concurrent seasonal adjustment method. Due to the larger than usual point-to-point changes in May 2020 and November 2020 in particular, the ABS recommends caution when using trend estimates during this period.

Seasonal adjustment

Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences can be more clearly recognised. Seasonal adjustment does not aim to remove the irregular or non-seasonal influences which may be present in any particular series. Influences that are volatile or unsystematic can still make it difficult to interpret the movement of the series even after adjustment for seasonal variation. If a time series has no identifiable seasonality it is not seasonally adjusted.

The AWE survey uses the concurrent seasonal adjustment technique to estimate seasonal factors, based on a synthesised quarterly original series. Linear interpolation is used to impute "missing" quarterly original observations based on the succeeding and preceding survey estimates. Under concurrent seasonal adjustment, the estimates of seasonal factors

are improved as new or revised original estimates become available each period.

Trend estimates

Seasonally adjusted estimates can be smoothed to reduce the impact of irregular or non-seasonal influences. Smoothed seasonally adjusted series are called trend estimates.

The ABS considers that trend estimates provide a more reliable guide to the underlying direction of the original estimates and are more suitable than either the seasonally adjusted or original estimates for most business decisions and policy advice.

The trend estimates in the AWE survey are calculated using a centred 7-term Henderson moving average of the seasonally adjusted estimates of quarterly synthesised original data. Estimates for the three most recent periods cannot be calculated using this centred average method; instead an asymmetric average is used.

The changes to the moving average formulae can lead to revisions in the trend as data for subsequent periods becomes available. Revisions to the original data and re-estimation of seasonal adjustment factors also cause revisions to trend estimates. If a series is highly volatile then the trend estimates will be subject to greater revision for the latest few observations as new data become available. However, it is important to note that this does not make the trend series inferior to the seasonally adjusted or original series.

For further information, see [A Guide to Interpreting Time Series - Monitoring Trends (https://www.abs.gov.au/ausstats/abs@.nsf/mf/1349.0)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/1349.0) .

Survey output

Estimates are published biannually (for May and November) in Average Weekly Earnings, Australia, released approximately three months after the reference period.

Three main series are published:

- Average weekly ordinary time earnings (commonly referred to as AWOTE) for full-time adult employees;
- Average weekly total earnings for full-time adult employees (comprising weekly ordinary time earnings plus weekly overtime earnings); and
- Average weekly total earnings for all employees.

Estimates of the annual percentage change for average earnings are published for each key series. Estimates are cross-classified by sector, state or territory, and by industry at the Australian level for males, females and persons.

Estimates are published on original, seasonally adjusted and trend basis, with seasonally adjusted and trend estimates available by Australia and state/territory for each of the three main series listed above.

For further information in understanding AWE statistics, see the feature article [A Guide to Understanding Average Weekly Earnings Statistics (https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/6302.0main+features8Nov%202014)](https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/6302.0main+features8Nov%202014) .

Movements in average weekly earnings and comparability with the wage price index

The AWE survey is designed to provide estimates of the level of average earnings at a point in time and, while not designed for movements in earnings, the frequency of collection supports a time series of these level estimates. The standard errors for the period-to-period movements are much higher proportionally than for the level estimates, so should be interpreted with this in mind.

Changes in average earnings are affected not only by changes in the level of earnings of employees, but also by changes in hours worked and the overall composition of the workforce over time.

This compositional change (may apply differently within different states and territories, and over time) can include variations in:

- the proportion of full-time, part-time, casual and junior employees;
- occupational distribution within and across industries; and
- the distribution of employment between industries.

Movements from the AWE survey therefore account for the changing workforce over time (i.e. the average earnings based on the composition of the workforce, and how they have changed from the earnings based on the composition of the workforce at an earlier time).

An alternative source for estimates of movements in earnings (wages growth) is the quarterly Wage Price Index (WPI).

Unlike AWE, the WPI is designed to measure the change over time in the price of wages and salaries (i.e. a pure price change, unaffected by changes in the quality or quantity of work performed or the composition of the workforce).

As a result, period-to-period movements for the AWE series are not comparable with those for the WPI.

The WPI is published in Wage Price Index, Australia (/statistics/economy/price-indexes-and-inflation/wage-price-index-australia/latest-release) . For further information on comparability between AWE and WPI, please refer to the feature article Average Weekly Earnings and Wage Price Index - What do they measure? (https://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/6302.0Main%20Features9May%202014?opendocument&tabname=Summary&prodno=6302.0&issue=May%202014&num=&view=) .

Reliability of estimates

Estimates are subject to sampling and non-sampling errors. For information on the reliability of estimates see the Technical Note (#technical-note-sampling-error) .

The Bootstrap approach is used to calculate estimates of variance for this survey. The Bootstrap is a variance estimation method which relies on the use of replicate samples, essentially sampling from within the main sample. Each of these replicate samples is then used to calculate a replicate estimate and the variation in these replicate estimates is used to calculate the variance of a particular estimate.

Rounding

Estimates of average weekly earnings are rounded to the nearest 10 cents, and discrepancies may occur between sums of the component items and totals. Estimates of percentage change have been calculated using unrounded estimates, and may be different from, but are more accurate than, movements obtained from calculating percentage change using the rounded estimates presented in this release.

Related information and publications

- Understanding Earnings in Australia Using ABS Statistics (https://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/6310.0Main%20Features5August%202013?opendocument&tabname=Summary&prodno=6310.0&issue=August%202013&num=&view=)
- Employee Earnings and Hours, Australia (/statistics/labour/earnings-and-working-conditions/employee-earnings-and-hours-australia/latest-release)
- Characteristics of Employment, Australia (/statistics/labour/earnings-and-working-conditions/characteristics-employment-australia/latest-release)
- Employment and Earnings, Public Sector, Australia (/statistics/labour/employment-and-unemployment/employment-and-earnings-public-sector-australia/latest-release)
- Jobs in Australia (/statistics/labour/earnings-and-work-hours/jobs-australia/latest-

release)

- Personal Income in Australia (https://www.abs.gov.au/statistics/labour/earnings-and-working-conditions/personal-income-australia/latest-release)

- Labour Force, Australia (/statistics/labour/employment-and-unemployment/labour-force-australia/latest-release)

- Wage Price Index, Australia (/statistics/economy/price-indexes-and-inflation/wage-price-index-australia/latest-release)

- Weekly Payroll Jobs (/statistics/labour/earnings-and-work-hours/weekly-payroll-jobs-and-wages-australia/latest-release)

- Monthly Employee Earnings Indicator (/statistics/labour/earnings-and-working-conditions/monthly-employee-earnings-indicator/latest-release)

- Labour Account Australia (/statistics/labour/labour-accounts/labour-account-australia/latest-release)

- Average Weekly Earnings, Australia, 1941-1990 (https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6350.01941-1990)

- Labour Statistics: Concepts, Sources and Methods (/statistics/detailed-methodology-information/concepts-sources-methods/labour-statistics-concepts-sources-and-methods/latest-release)

- Gender indicators (/statistics/people/people-and-communities/gender-indicators)

- Guide to labour statistics (/statistics/understanding-statistics/guide-labour-statistics)

History of changes

In order to provide a high degree of consistency and comparability over time, changes to survey methods, concepts, data item definitions, and frequency of collection are made as infrequently as possible. Significant changes have included:

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2023

- Redesigned survey sample implemented in May 2023 issue.

2022

- Trend estimates reinstated from November 2022.
- AWE returned to using concurrent adjustment for all seasonally adjusted series from November 2022.

2021

- JobKeeper recipient information removed from the imputation class structure from the

November 2021 issue.

2020

- Trend estimates were suspended temporarily from May 2020.
- Forward seasonal factors replaced concurrent adjustment for some of the seasonally adjusted series, commencing with May 2020 issue.
- Imputation methodology for the May 2020 period refined to include whether the employer was in receipt of JobKeeper payments, as part of the imputation class structure.

2017

- Sample redesign implemented in November 2017.

2015

- Time series identifiers used in the AWE spreadsheets changed from May 2015. See Information Paper: Average Weekly Earnings, Australia: Upcoming Changes to Time Series Spreadsheets (https://www.abs.gov.au/ausstats/abs@.nsf/mf/6302.0.55.004) .

2014

- From the May 2014 issue, winsorisation methodology was introduced as the primary method to treat outliers in AWE replacing 'surprise outliering' as the primary methodology. For more information, refer to the Methods: Four pillars of labour statistics (/statistics/detailed-methodology-information/concepts-sources-methods/ labour-statistics-concepts-sources-and-methods/2023/methods-four-pillars-labour- statistics) section in Labour Statistics: Concepts, Sources and Methods.

2012

- Frequency changed from quarterly to biannual (May and November reference periods). For full details on the change in frequency, including the impact on trend and seasonally adjusted estimates, refer to Information Paper: Changes to Average Weekly Earnings, Australia (https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/ DD23CEA658FF10D1CA2579DF0014A104?opendocument) .

2011

- The average weekly cash earnings series inclusive of salary sacrifice is introduced, with the time series available back to May 2010. For further information relating to the average weekly cash earnings series, refer to Information Paper: Release of Average Weekly Cash Earnings Series (https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/ 6302.0.55.003Main+Features1May%202011?OpenDocument) and Information Paper: Changes to Average Weekly Earnings, Australia (https://www.abs.gov.au/ausstats/ abs@.nsf/mf/6302.0.55.002) .

2009

- Survey sample redesigned on an ANZSIC 2006 industry basis. Additional details about the implementation of ANZSIC 2006 in AWE can be found in the Information Paper: Changes to Average Weekly Earnings, Australia, Aug 2009 (https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/883673FA451F8436CA2579DF00122DB8?opendocument) .
- Sample redesign and improvements to the business survey frame implemented, historical series back cast on the new basis back to August 1994.

2008

- AWE data series for August 1996 through to May 2008 revised to exclude all amounts salary sacrificed. For further information see Information Paper: Revisions to the Average Weekly Earnings Series, Aug 2008 (https://www.abs.gov.au/ausstats/abs@.nsf/mf/6302.0.55.001) .

2007

- Separate collection of salary sacrificed amounts from August 2007.

2006

- The privatisation of Telstra Corporation in November 2006 impacted on the private sector and public sector AWE series. As a result, a trend break was applied to both series between November 2006 and February 2007. For more information please see Information Paper: Future Treatment of Telstra in ABS Statistics, 2007 (https://www.abs.gov.au/ausstats/abs@.nsf/mf/8102.0) , released 26 February 2007.

2001

- Publication of preliminary estimates discontinued.

1994

- Survey redesigned on an ANZSIC 1993 industry basis.

1993

- Trend estimates introduced.
- Industry estimates by Australian Standard Industrial Classification (ASIC) introduced.

1992

- First data collected electronically from selected survey respondents, including Commonwealth Government departments.
- AWE survey data (up to 1990) linked with data from previous sources and back cast to 1941 (Average Weekly Earnings, Australia, 1941-1990 (https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6350.01941-1990)).

1986

- Sample reallocated based on sample data previously received.

1983

- Interim survey from 1981 replaced; sample increased, selected from upgraded ABS Business Register.
- Number of employees redefined to those receiving pay in the reference period, rather than those that are on the payroll.
- Overtime redefined as overtime hours paid for in reference period, rather than overtime hours worked during the reference period.
- Seasonally adjusted estimates introduced.

1981

- Information from quarterly sample survey of businesses conducted quarterly replaced payroll tax returns as source of data in August. Revised estimates of AWE for the period August 1981 to November 1983 were included in [Average Weekly Earnings, States and Australia, March 1984 (https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6302.0Main+Features1Mar%201984?OpenDocument)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6302.0Main+Features1Mar%201984?OpenDocument) .

1941

- AWE collection commenced, based principally on information from payroll tax returns.

Technical note - sampling error

Reliability of estimates

As the estimates in this release are based on information relating to a sample of employers, rather than a full enumeration, they are subject to sampling variability. That is, they may differ from the estimates that would have been produced if the information had been obtained from all employers. This difference, called sampling error, should not be confused with inaccuracy that may occur because of imperfections in reporting by respondents or in processing by the ABS. Such inaccuracy is referred to as non-sampling error and may occur in any enumeration whether it be a full count or a sample. Efforts have been made to reduce non-sampling error by careful design of questionnaires, detailed checking of returns and quality control of processing.

The sampling error associated with any estimate can be estimated from the sample results. One measure of sampling error is given by the standard error which indicates the degree to which an estimate may vary from the value which would have been obtained from a full enumeration (the 'true value'). There are about two chances in three that a sample estimate differs from the true value by less than one standard error, and about nineteen chances in

twenty that the difference will be less than two standard errors. Standard errors are provided in tables 3, 6, 9, 10 and 13 to 17.

An example of the use of a standard error is as follows. If the estimated average earnings were $1,100.00 with a standard error of $7.00, then there would be about two chances in three that a full enumeration would have given an estimate in the range $1,093.00 to $1,107.00 and about nineteen chances in twenty that it would be in the range $1,086.00 to $1,114.00.

Another measure of the sampling error is the relative standard error, which is obtained by expressing the standard error as a percentage of the estimate.

Glossary

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Adult employees

Adult employees are those employees 21 years of age or over and those employees who, although under 21 years of age, are paid at the full adult rate for their occupation.

Average weekly cash earnings

Average weekly cash earnings represents average gross (before tax) earnings of employees, inclusive of salary sacrifice. Average weekly cash earnings differs from average weekly earnings by the average weekly amount salary sacrificed.

Average weekly earnings

Average weekly earnings statistics represent average gross (before tax) earnings of employees and do not relate to average award rates nor to the earnings of the 'average person'. Estimates of average weekly earnings are derived by dividing estimates of weekly total earnings by estimates of number of employees.

Employees

Employees refer to all wage and salary earners (as defined in the Scope and Coverage section of the Explanatory Notes) who received pay for any part of the reference period.

Full-time employees

Full-time employees are permanent, temporary and casual employees who normally work the agreed or award hours for a full-time employee in their occupation and received pay for any part of the reference period. If agreed or award hours do not apply, employees are

regarded as full-time if they ordinarily work 35 hours or more per week.

Reference period

The reference period for the survey is the last pay period ending on or before the third Friday of the middle month of the reference quarter. Where a pay period is fortnightly or monthly, etc., the employer is requested to report only one week's proportion.

Salary sacrifice

Salary sacrifice is defined as an arrangement where an employee agrees to forgo part of their pre-tax salary in return for benefits. Common types of salary sacrifice arrangements include pre-tax contributions to superannuation funds and novated leases for motor vehicles.

Sector

Public sector includes all local government authorities and government departments, agencies and authorities created by, or reporting to the Commonwealth and State parliaments. All remaining employees are classified as private sector.

Weekly ordinary time earnings

Weekly ordinary time earnings refers to one week's earnings of employees for the reference period, attributable to award, standard or agreed hours of work. It is calculated before taxation and any other deductions (e.g. superannuation, board and lodging) have been made. Included in ordinary time earnings are award, workplace and enterprise bargaining payments, and other agreed base rates of pay, over-award and over-agreed payments, penalty payments, shift and other allowances, commissions and retainers, bonuses and similar payments related to the reference period, payments under incentive or piecework, payments under profit sharing schemes normally paid each pay period, payment for leave taken during the reference period, all workers' compensation payments made through the payroll, and salary payments made to directors. Excluded are amounts salary sacrificed, non-cash components of salary packages, overtime payments, reimbursements to employees for travel, entertainment, meals and other expenditure incurred in conducting the business of their employer, and other payments not related to the reference period. Also excluded are employer superannuation contributions (e.g. the 10.5% superannuation guarantee).

Weekly total earnings

Weekly total earnings of employees is equal to weekly ordinary time earnings plus weekly overtime earnings.

Quality declaration

Institutional environment

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment (/about/legislation-and-policy/abs-institutional-environment) .

Relevance

The biannual Survey of Average Weekly Earnings (AWE) is designed to produce estimates of the level of average gross weekly earnings associated with employee jobs in Australia, at a point in time. While AWE is not designed for movement in earnings, the frequency of collection supports a time series of these level estimates. In practice, AWE is used for estimates of both the level of earnings and movement in earnings; level estimates and estimates of movement in AWE are linked to both state and federal legislation for adjusting a variety of government payments. AWE data are also used for analysing average earnings, framing and supporting wage claims/submissions, monitoring wage equity and developing taxation and social policies.

The key earnings series produced from the survey are:

- full-time adult ordinary time earnings (commonly referred to as AWOTE);
- full-time adult total earnings;
- all employees total earnings.

Each of the above series is available for males, females and persons. Estimates are available by state/territory, industry and sector. Seasonally adjusted, where there is observed seasonality, and trend estimates are produced for key series. Cash series estimates, which are inclusive of amounts salary sacrificed, are also available.

Timeliness

AWE is produced for the June and December quarters. The reference period for the survey is the last pay period ending on or before the third Friday of the middle month of the reference quarter (i.e. May and November). Where a pay period is fortnightly or monthly, etc., the employer is requested to report only one week's proportion.

Prior to 2012, Average Weekly Earnings was conducted on a quarterly basis. The frequency

of the AWE survey was changed to biannual with effect from the 2012/13 financial year. The May 2012 publication was the last quarterly issue and the November 2012 the first produced on a biannual basis.

AWE estimates are released approximately 13 weeks after the reference date for the May edition and 14 weeks after the reference date for the November edition due to the Christmas and New Year period.

Accuracy

Information for the AWE survey is collected via web form questionnaires which are distributed to approximately 6,000 employers. The population of employers is stratified by state, sector, industry division and employment size to ensure adequate state, sector and industry representation. The target minimum response rate is 90%.

There are two principal sources of error in surveys, sampling error and non-sampling error. Non-sampling error arises from inaccuracies in collecting, recording and processing the data. Every effort is made to minimise non-sampling error by the careful design and testing of questionnaires, detailed checking of the reported data and direct follow up with providers where significant errors are detected.

Sampling error occurs when a sample or subset of the population is surveyed rather than the entire population. One measure of the likely difference resulting from not including all of the population in the survey is given by the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if the whole population had been included in the survey.

As the primary purpose of AWE is to estimate the level of average earnings in Australia, the standard errors for period-to-period movements are much higher proportionally than for level estimates. Estimates of movement should be interpreted with this in mind.

AWE estimates are seasonally adjusted to remove the estimated effects of normal seasonal variation from the series. The seasonally adjusted series are further smoothed to reduce the impact of irregular or non-seasonal factors. Smoothed seasonally adjusted series are called trend estimates. As data becomes available for the next period there are usually revisions in the seasonally adjusted and trend estimates for the previous periods.

The ABS considers that trend estimates provide a more reliable guide to the underlying direction of the original estimates and are more suitable than either the seasonally adjusted or original estimates for most business decisions and policy advice.

Coherence

The current AWE series, based on information obtained from a sample survey of employers, was introduced in August 1981. Prior to August 1981 the AWE series was based primarily on information from payroll tax returns.

Data collection methodology has been improved over time, including survey definitions and sample design. Seasonally adjusted estimates were introduced in 1983 and trend estimates were introduced in 1993.

The AWE survey uses Australian standard classifications to facilitate data comparability across statistical series. From the August 2009 issue of the AWE publication, data is presented using the 2006 edition of the Australian and New Zealand Standard Industrial Classification (ANZSIC) (https://www.abs.gov.au/ausstats/abs@.nsf/mf/1292.0) . The 2006 edition of ANZSIC was developed to provide a more contemporary industrial classification system, taking into account issues such as changes in the structure and composition of the economy, changing user demands and compatibility with major international classification standards.

Industry data from August 2009 is only available on an ANZSIC 2006 basis. Published industry series were backcast and data from August 1994 to May 2009 are available on the ABS website on the basis of both the 2006 edition and the previous 1993 edition of ANZSIC (https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/ E05F0987CD26ABF0CA257122001AC9BC?opendocument) .

The ABS conducts a number of sample surveys of businesses which collect information about wages and salaries. One of these, the Wage Price Index, is designed to measure the change over time in the price of wages and salaries. Period-to-period movements for the AWE series are not comparable with those for the Wage Price Index as the two series have different purposes and concepts and use different sample selection and estimation methodologies. For further information on comparability between AWE and WPI, refer to the feature article Average Weekly Earnings and Wage Price Index - What do they measure? (https://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/ 6302.0Main%20Features9May%202014? opendocument&tabname=Summary&prodno=6302.0&issue=May%202014&num=&view=) published in the May 2014 AWE issue.

Interpretability

Average weekly earnings statistics represent average gross earnings of employees and do

not relate to average award rates nor to the earnings of the 'average person'. Changes in the averages may be affected not only by changes in the level of earnings of employees, but also by changes in the overall composition of the wage and salary earner segment of the labour force.

There are several factors which can contribute to compositional changes, including variations over time in the proportions of full-time, part-time, casual and junior employees; variations in the occupational distribution within and across industries; variations in the distribution of employment between industries; and variations in the proportion of male and female employees. Such effects may apply differently within different states and territories, and over time.

AWE statistics closely follow the International Labour Organisation's concept of 'Statistics of average earnings'. The data is collected in respect of a typical week and, therefore, may not reflect events such as Christmas trading. Further, the data excludes irregular and infrequent payments, such as annual bonuses. For these reasons, caution is advised if using AWE to derive annualised average earnings.

For further information on understanding Average Weekly Earnings statistics, please refer to the feature article A Guide to Understanding Average Weekly Earnings Statistics (https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/6302.0main+features8Nov%202014) , published in the November 2014 release.

Average Weekly Earnings, Australia contains Explanatory Notes, a Glossary and a Technical Note which provide further information about data sources, terminology and other technical aspects of the series.

Accessibility

Average Weekly Earnings, Australia is available electronically from the ABS website and includes downloadable Excel data files for time series data.

For enquiries about these and related statistics, contact the Customer Assistance Service via the ABS website Contact Us (/about/contact-us) page. The ABS Privacy Policy outlines how the ABS will handle any personal information that you provide to us.

Abbreviations

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ABN	Australian Business Number
ABR	Australian Business Register
ABS	Australian Bureau of Statistics
ABSBR	Australian Bureau of Statistics Business Register
ANZSIC	Australian and New Zealand Standard Industrial Classification
ARIMA	Autoregressive Integrated Moving Average
ATO	Australian Taxation Office
AWCE	Average Weekly Cash Earnings
AWE	Average Weekly Earnings
EG	Enterprise Group
LE	Legal Entity
PAYGW	Pay-As-You-Go Withholding
SISCA	Standard Institutional Sector Classification of Australia
TAU	Type of Activity Unit
TOBE	Type of Business Entity
TOLO	Type of Legal Organisation
WPI	Wage Price Index